Summary

In light of the current regulatory environment and ongoing public debate surrounding matters of Broadband Connectivity competition, I believe that voluntary disclosure of the existing packet management practices on a residential user's high-speed Internet access arrangement is the logical and necessary first step. It may not prove the final step, but I do think that such public disclosure will in itself significantly advance a number of policy objectives, as outlined below.

Policy Goals advanced by Voluntary Disclosure

1. *Competition:* Consumers have better information about which alternative will best support increasingly sophisticated needs.
2. *Innovation:* Application developers have information on the technical features of the network platform available to support new applications.
3. *Network improvements:* Network operators have more stability in service identifiers, providing them information about their traffic characteristics.[1]
4. *Market functioning:* Government agencies have baseline measures and more granular information for assessing competitive choice.
5. *Non-discrimination:* Network operators have a strong incentive from public disclosure to thoroughly consider adding any new usage restrictions.

Assumptions

6. Residential Broadband technology in the five-year timeframe will provide parallel, channelized access to services provisioned on distinct networks:
    - 6.1. Switched Data (making use of IP global routing to become part of the commodity Internet),
    - 6.2. Switched Voice (making use of IP for access transmission to the switched voice network that is based on E.164 numbering),
    - 6.3. Primary Television (making use of IP for access transmission to head-end-based video services).
7. Debate surrounding "Broadband Connectivity Competition" is implicitly and almost exclusively concerned with commodity Internet service access.
8. As a practical matter, addressing only the packet management practices applied to the final link of commodity Internet access for the residential user is necessary and sufficient.
    - 8.1. The user has a strong identifiable interest in the practices on this link.
    - 8.2. Application-level quality of service regimes in the core networks ultimately rely on such per-packet classification.
9. Assuming a single class of commodity Internet access isn't realistic:
    - 9.1. Multiple classes of access do provide consumer choice.
    - 9.2. Class of access is a function of price and features – and not just bandwidth.
    - 9.3. Features are determined by per packet classification.
    - 9.4. It's not possible to judge cleanly between security and interference.

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[1] Informational RFC 3639 "Considerations on the use of a Service Identifier in Packet Headers" October 2003

Recommendations

10. The *first step* should be to establish baseline descriptions of current high-speed commodity Internet access services (not safeguards).
    10.1. Industry should document what today appear to be widely-accepted services.
    10.2. A voluntary disclosure approach, with "bully pulpit" encouragement from Government agencies, should suffice.
    10.3. No judgment should be made as to what is or is not acceptable practice.
    10.4. A simple information resource in itself will advance multiple policy objectives (above), whether or not additional steps are taken later.
11. There's ample guidance and some examples of how to do this (see below).
    11.1. Necessary elements are well-standardized and therefore a standard disclosure template is not required.
12. Markets, not Government agencies, define classes of service offerings.
13. Government agencies can ensure that classes of access are:
    13.1. Adequately described: filters, priorities, commercial preferences;
    13.2. Not arbitrarily changed to interfere with third-party services.
14. As a policy objective, residential users should indeed have the option of a fully neutral Internet Access service at a reasonable price.
    14.1. This may be satisfied by a "business" class offering primarily targeted at small and home offices.
15. The term "broadband" (*i.e.*, a descriptive for last-mile high-bandwidth transmission technologies) should not be used as a proxy for "high-speed Internet access" (*i.e.*, the service actually at issue here).

Voluntary Disclosure Guidance and Examples

16. Past guidance from technology experts can be brought up to date to include identifying and differential treatment based on commercial arrangements or generic service identification:
    16.1. Internet Engineering Task Force:
    "…the provider should identify any actions of the service to block, restrict, or alter the destination of, the outbound use of applications services."[2]
    16.2. FCC Network Reliability and Interoperability Council VI:
    "Make meaningful information available to customers about blocking and filtering policies. This information should disclose both static and dynamic traffic filtering policies. Static Policies are policies that seldom change. Services and applications may depend on a consistent set of policies. Dynamic Policies are policies that are adjusted as part of a dynamic need to maintain the "best" operations of the network. Typically these policies are implemented as a response to an outside stimulus (virus, attack, etc)."[3]

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[2] Current Best Practices RFC 4084 "Terminology for Describing Internet Connectivity," May 2005

[3] NRIC VI Focus Group 4 (Broadband) Recommendations, Service Transparency White Paper, December 5,2003.

Examples

17. Some high-speed Internet Service Providers have demonstrated a willingness to disclose information at the appropriate level of detail.
    17.1. Cox High Speed Interenet static filtering policy available from support.cox.com
    17.2. PrairieWave Communications static filtering policy available at www.prairiewave.com/support/internet
18. The level of technical information implicitly disclosed in Acceptable Usage Agreements generally is not sufficient to support the policy objectives.
19. Consumer groups, user-oriented web forums, and third-party application providers are able to interpret the disclosed technical information in the practical terms most assistive to ordinary residential users.

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